WHAT IS CLAIMED IS:

1. A method of enhancing the activity of lysosomal α-galactosidase A in mammalian cells comprising administering an effective amount of a compound selected from the group consisting of 2,5-dideoxy-2,5-imino-D-mannitol, 3,4-di*epi*-α-homonojirimycin, 5-O-α-D-galactopyranosyl-α-homonojirimycin, 1-deoxygalactonojirimycin, ~~4-*epi*-fagomine~~, calystegine A_3, calystegine B_2, and calystegine B_3, and N-alkyl derivatives thereof.

514/317 (US Pat 5,536,732)

2. The method of claim 1 wherein the lysosomal α-galactosidase A is a mutant form which is present in patients with Fabry disease.

3. The method of claim 1 wherein said cells are human cells.

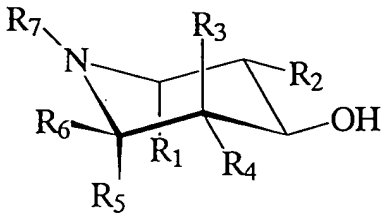
4. The method of claim 3 wherein said cells are the cells of a patient with Fabry disease.

5. A method of treating Fabry disease comprising administering an effective amount of a compound selected from the group consisting of 2,5-dideoxy-2,5-imino-D-mannitol, 3,4-di*epi*-α-homonojirimycin, 5-O-α-D-galactopyranosyl-α-homonojirimycin, 1-deoxygalactonojirimycin, 4-*epi*-fagomine, calystegine A_3, calystegine B_2, and calystegine B_3, and N-alkyl derivatives thereof.

6. The method of claim 5 wherein said compound is 1-deoxygalactonojirimycin or 3,4-diepi-α-homonojirimycin.

7. The method of claim 6 wherein said compound is 1-deoxygalactonojirimycin.

8. A method of enhancing the activity of lysosomal α-galactosidase A in mammalian cells comprising administering an effective amount of a compound of the formula



wherein R_1 represents H, $-CH_2-$ or CH_2OH;

R_2 represents H, OH or -*O*-galactose;

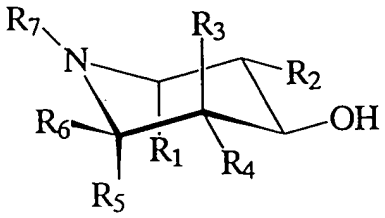
R_3 and R_4 independently represent H, or OH;

R_5 represents H, or $-CH_2-$;

R_6 represents CH_2OH, or OH; and

R_7 represents H or an alkyl group containing 1-3 carbon atoms, provided that when either R_1 or R_5 is $-CH_2-$, they are identical and are linked to form a second ring structure.

9. A method of treating Fabry disease comprising administering an effective amount of a compound of the formula



wherein R_1 represents H, $-CH_2-$ or CH_2OH;

R_2 represents H, OH or -*O*-galactose;

R_3 and R_4 independently represent H, or OH;

R_5 represents H, or $-CH_2-$;

R_6 represents CH_2OH, or OH; and

R_7 represents H or an alkyl group containing 1-3 carbon atoms, provided that when either R_1 or R_5 is $-CH_2-$, they are identical and are linked to form a second ring structure.